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SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: MARK FADOR Examiner #: 78738 Date: 2-16-03
 Art Unit: 3625 Phone Number: 206054252 Serial Number: 09/411524
 Mail Box and Bldg/Room Location: 37B7 Results Format Preferred (circle) PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: METHOD FOR MULTI-CARRIER PACKAGE TRACKING

Inventors (please provide full names): SEE ATTACHED BIB SHEET.

Earliest Priority Filing Date: 10/4/1999

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Pls. Search provided claims. Read MAIL ROOM MAINSTAY (Article provided) that Explains in detail what the invention is. The Feature that appears to be novel is the Access of the carrier's web site. The specifics of the limits that are set by the carrier as to when the data can be accessed. I.E. The Feature "WHERE IS THE COORDINATOR COMPIRE" means for limiting the generation of tracking objects for selected carriers based on pricing constraints provided by the selected carrier. ECT. CALL IF ANY QUESTIONS. THADIS GUL

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Searcher: Bode Akintola
 Searcher Phone #: 306 6150
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 Date Searcher Picked Up: 12/18/03
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 Sequence Systems _____
 WWW/Internet ✓
 Other (specify) _____

Art Unit: 3625

Jeff

Please note changes and the suggested cancellation of claims 19 and 24 for not further limiting the independent claim., What do you think?

Thanks

Mark

1. A tracking system in which a package is to be sent from a user to a recipient by requesting shipping through Internet resources associated with carriers capable of delivering the package to the recipient, in which the user determines the carrier to be used for shipping a package to a particular recipient, comprising:

means for generating a tracking number, the tracking number being associated with ^{the} a package to be sent from the user to the recipient by a selected carrier;

means for generating a tracking request, the tracking request containing the tracking number associated with the package, as well as information of the particular selected carrier which is to deliver the package to the recipient^s;

a storage location adapted to store ~~the~~ tracking requests;

a tracking coordinator adapted to receive said tracking ^{requests} request and adapted to generate tracking objects, and adapted to send said tracking objects to a tracking website of the selected carrier;

means for receiving results from the tracking website of the selected carrier;

means for updating the shipping server data storage with the results from the ^{tracking website of the} selected carrier ~~website~~; and

wherein the tracking coordinator ^{comprises means for limiting} ~~limits~~ the generation of tracking objects for ~~a~~ ^{the} particular selected carrier based on pacing constraints provided by the selected

Art Unit: 3625

carrier so as to be generated no more frequently than a predetermined carrier designated number of tracking objects per predetermined carrier designated interval.

2. A tracking system for a shipping system as defined in claim 1, further comprising a tracking result queue for receiving the results from selected carrier websites and for outputting these results for delivery to a shipping system server data storage device.

3. A tracking system for a shipping system as defined in claim 2, wherein the shipping system server has an instant tracking component for allowing a user to generate a tracking request for a package, wherein the tracking coordinator has means for generating a tracking object for the user tracking request that is prioritized with respect to other tracking objects generated for the same carrier as that associated with the user's package.

6. A tracking system for a shipping system as defined in claim 3, wherein the tracking coordinator has means for generating tracking objects to a carrier tracking website using multiple Internet Protocol addresses.

7. A tracking system for a shipping system as defined in claim 3, wherein the shipping system server includes a scheduler for automatically retrieving information required to generate a tracking request from the data storage device, wherein the scheduler times said retrieval of information to occur at a predetermined time.

8. A tracking system for a shipping system as defined in claim 1, wherein the shipping system server has an instant tracking component for allowing a user to generate a tracking request for a package, wherein the tracking coordinator has means

for generating a tracking object for the user tracking request that is prioritized with respect to other tracking objects generated for the same carrier as that associated with the user's package.

13. A tracking system as defined in claim 1, further comprising an E-mail services component for generating an E-mail message to a party specified by the user when the tracking information indicates that the package has been delivered to the recipient.

15. A tracking method for a shipping system in which a package is to be sent from a user to a recipient by requesting said shipping through Internet resources associated with carriers capable of delivering the package to the recipient, in which the user of the shipping system determines the carrier to be used for shipping a package to a recipient, and in which the shipping system has a shipping system server with a data storage device for storing package tracking data, comprising the steps of:

- (a) generating a tracking number associated with a package to be sent from the user to the recipient by a selected carrier;
- (b) generating a tracking request containing the tracking number associated with the package, as well as information of the particular carrier which is to deliver the package to the recipients;
- (c) storing the tracking requests;
- (d) generating tracking objects and sending said tracking objects to the tracking website of the selected carrier;
- (e) receiving results from the tracking website of the selected carrier;
- (h) updating the shipping server data storage with the results from the selected carrier website; and
- (i) limiting the generation of tracking objects for a particular selected carrier based on pacing constraints provided by the selected carrier so that tracking

Art Unit: 3625

objects are generated no more frequently than a predetermined carrier designated number of tracking objects per predetermined carrier designated interval.

16. A tracking method as defined in claim 15, further comprising the step of receiving the results from all of the carrier websites and for outputting these results for delivery to the shipping system server data storage device.

17. A tracking method as defined in claim 16, further comprising the steps of allowing a user to generate an instant tracking request for a package, and for generating a tracking object for the user tracking request that is prioritized with respect to other tracking objects generated for the same carrier as that associated with the user's package.

~~19. (cancel) A tracking method as defined in claim 17, further comprising the step of limiting the generation of tracking objects so that the total number generated for a particular carrier over a predetermined time interval does not exceed a predetermined number, regarding the pacing of the generation of said tracking objects.~~

20. A tracking method as defined in claim 17, further comprising the step of generating tracking objects to a carrier tracking website using multiple Internet Protocol addresses.

21. A tracking method as defined in claim 17, further comprising the step of automatically scheduling retrieving information required to generate a tracking request from the data storage device at a predetermined time.

22. A tracking method as defined in claim 15, wherein the shipping system server has an instant tracking component for allowing a user to generate a tracking request for a package, wherein the tracking coordinator has means for generating a tracking object

Art Unit: 3625

for the user tracking request that is prioritized with respect to other tracking objects generated for the same carrier as that associated with the user's package.

24. (cancel) A tracking method as defined in claim 15, further comprising the step of limiting the generation of tracking objects so that the total number generated for a particular carrier over a predetermined time interval does not exceed a predetermined number.

25. A tracking method as defined in claim 22, further comprising the step of generating tracking objects to a carrier tracking website using multiple Internet Protocol addresses.

26. A tracking method as defined in claim 15, further comprising the step of automatically scheduling retrieving information required to generate a tracking request from the data storage device at a predetermined time.

SERIAL NUMBER 09/411,524	FILING DATE 10/04/99	CLASS 235	GROUP ART UNIT 2876	ATTORNEY DOCKET NO. E-908
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CONTINUING DOMESTIC DATA***
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371 (NAT'L STAGE) DATA***
VERIFIED

FOREIGN APPLICATIONS***
VERIFIED

IF REQUIRED, FOREIGN FILING LICENSE GRANTED 11/01/99

Foreign Priority claimed 35 USC 119 (a-d) conditions met	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after Allowance	STATE OR COUNTRY CT	SHEETS DRAWING 7	TOTAL CLAIMS 26	INDEPENDENT CLAIMS 2
Verified and Acknowledged Examiner's Initials _____		Initials _____			

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TITLE
METHOD AND SYSTEM FOR MULTI-CARRIER PACKAGE TRACKING

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Abstract of the Disclosure:

A tracking system and method uses a multi-threaded controller to automatically and periodically generate tracking objects that are presented to carrier tracking websites. The tracking objects are retrieved from input queues that receive tracking requests from a scheduler. The carrier tracking website updates the status of package delivery which in turn updates the data in the shipping system server with respect to tracking information. This updated information can be used to automatically generate E-mail notification of package delivery as well as for updated purposes. An instant track component allows a user to obtain prioritized tracking information from the associated carrier tracking website.

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Mail Room Mainstay Tracks Packs

Phillips Business Information's Internet Week; Potomac; Oct 20, 1997; Richard Karpinski;

Special Volume/Issue: Issue: 686

Start Page: PG1

ISSN: 10812474

Abstract:

1 The Personal Shipping System is expected to arrive as a free Web service in the first quarter of next year. It will let site visitors compare rates and check addresses online, all from one interface. Using these services as a draw, ①Pitney Bowes hopes to establish its Web site as a vehicle for selling its products and services.

2 The effort is the latest by ①Pitney Bowes to leverage the Internet to help automate the corporate mail room. The company also is launching a hybrid E-mail/paper-message service that will be managed over the Internet, and is one of three companies authorized by the U.S. Postal Service to explore technology for delivering postage over the Internet.

3 The company's Web-based E-commerce vision is: "If you do any mailing or shipping, you stop first at the ①Pitney Bowes Web site," said Bill Shannon, director of business operations in ①Pitney Bowes' small-office/home-office division.

Full Text:

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4 ①Pitney Bowes is in the final stages of testing an application that will give your mail room simultaneous access to the package-tracking systems of all the major overnight mailing couriers.

5 The Personal Shipping System is expected to arrive as a free Web service in the first quarter of next year. It will let site visitors compare rates and check addresses online, all from one interface. Using these services as a draw, ①Pitney Bowes hopes to establish its Web site as a vehicle for selling its products and services.

6 The tracking application-code-named the virtual mail room-will include some basic accounting functions, and in later versions will more seamlessly integrate with a customer's intranet-based inventory and purchasing applications (see related story, page 25). The application uses technology from software developer ①WebMethods Inc.

7 The effort is the latest by ①Pitney Bowes to leverage the Internet to help automate the corporate mail room. The company also is launching a hybrid E-mail/paper-message service that will be managed over the Internet, and is one of three companies authorized by the U.S. Postal Service to explore technology for delivering postage over the Internet.

8 The company's Web-based E-commerce vision is: "If you do any mailing or shipping, you stop first at the ①Pitney Bowes Web site," said Bill Shannon, director of business operations in ①Pitney Bowes' small-office/home-office division.

Although Shannon anticipates the service initially will attract small- and medium-sized businesses, the company has not ruled out providing integration services building these capabilities into larger companies' existing intranets.

Even though practically every major shipper, including Federal Express, United Parcel Service and DHL Airways, has Web-based access to package tracking today, "those pages are so popular, they're often down or busy," said Chris Reynolds, the president of Milestone Systems, the vendor that helped build the Pitney Bowes application.

"Using sophisticated agent and server technology, with our system you can enter an airbill number once and forget about it, and our system will just keep trying and proactively send back a notice when it's done."

Overnight shipping leaders FedEx and UPS do not allow rate- comparisons or consolidated tracking on their popular Web sites, though DHL Airways has detailed a system-also built by Milestone Systems and using WebMethods technology-that will enable tracking of packages from other carriers. The DHL application is still in beta testing but will go live on the Web shortly, said Mark Lussier, lead software engineer at DHL.

The biggest challenge for Pitney Bowes may be deciding whether it can launch a successful service without the explicit help of the carrier companies. Pitney has had some initial discussions with the carriers, but its near-term plans call for it to make a go of the service on its own, said Pitney Bowes' Shannon.

"We envision if we can be successful and work as a trusted retailer on the Internet for the carriers, then perhaps we can offer this in a more meaningful way, where you wouldn't have to go to each carrier's site {to track packages} but just one page {the Pitney Bowes' site}," Shannon said.

"There are some technical barriers to that, and also some business issues. If you are a larger carrier, it may be more advantageous to get a customer to come to your own site so that you can control the relationship," he said.

Greg Smith, vice president at Colography Group, an Atlanta-based transportation consultancy, said, "I don't think they'd ever crack the hold of the UPS or FedEx proprietary systems. But there are a massive number of carriers and third parties that simply do not have the size or wherewithal to compete with FedEx that might want to take advantage of something like this."

Pitney Bowes has been planning for some time to take its self-described document/messaging business out onto the Internet, Shannon said. The \$3.9 billion company serves more than 1.2 million mailers today, mainly with postage meters, both mechanical and newer digital and PC-based systems, as well as related mailroom products and services.

But according to Shannon, formerly the company's director of international IT, the company already delivers postage updates electronically via modem and voice response system to more than 800,000 customers, representing some \$10 billion worth of postage worldwide.

The network to accomplish this and other IT feats, such as the new tracking service, was built from the ground up with Internet- standard technology, including TCP/IP, HTML and industry-standard cryptography, Shannon said. Pitney's IT shop built the system using mainly Microsoft technology, including the vendor's Internet Information Server (IIS) and ActiveX components for some client-side functions, he added.

"So right now, I have more software expertise than you might expect from a company best known for mechanical postage meters," Shannon said. "The challenge is to marshal our core skills, put them together with our new Internet-based competencies and respond quickly to the market."

Even with a good head start, building a single application that "scrapes" a variety of public Web sites and returns data in a meaningful form is not an easy task.

The WebMethods Web Automation product that sits at the center of the solution, which Milestone's Reynolds described as an "agent" application, sends out requests in the form of scripts to the various carrier Web sites. What comes back is an HTML string that the system parses into records that get placed in a database and then can be accessed locally by the application.

Shannon already reports a few blips in the development process have pushed the system's launch date back a few months. Long term, the company is still searching for the best way to accomplish Web- based distributed computing.

"It's just not easy today to broker transactions over the Internet at a high volume," Shannon said.

25 He added that his company is still exploring what revenue opportunities the service may offer in the long term.

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